

# Phosphine



Grade	ULSI 5N7	ROY-LED 5N8	ULTIMA 6N
Purity, %	99.9997	99.9998	99.9999
Oxygen	≤0.1 ppmv	≤0.1 ppmv	≤100 ppbv
Nitrogen	≤1.0 ppmv	≤1.0 ppmv	≤100 ppbv
Carbon Dioxide	≤0.1 ppmv	≤0.1 ppmv	≤100 ppbv
Carbon Monoxide	≤0.1 ppmv	≤0.1 ppmv	≤50 ppbv
Methane	≤0.1 ppmv	≤0.1 ppmv	≤100 ppbv
Water	≤1.0 ppmv	≤0.5 ppmv	≤100 ppbv
Argon			≤100 ppbv
Arsine		≤0.1 ppmv	≤50 ppbv
Germane			≤50 ppbv
Hydrogen Sulfide			≤50 ppbv
Silane			≤50 ppbv

- All cylinders are individually analyzed
- Pneumatic valves, DIN and JIS connections are available upon request.

CYLINDER	Internal Volume		Liters	43.8	47.5	
	<b>Cylinder Sizes &gt;&gt;</b>			<b>QN</b>	<b>QZ</b>	
	Content			kg	18.2	18.2
				lbs	40	40
	Change Point*			lbs	6.1	6.7

\*Recommended Cylinder Change Point at NTP, based on Phase Break, or the amount of product left in the cylinder when the liquid phase has completely evaporated and only gaseous product is left (estimate based on ideal gas behavior).

SHIP	DOT Shipping Name	Phosphine	UN Number	UN 2199	Shipped as
	DOT Classification	2.3 (2.1) Poison Gas	ECCN #	3C004	
	DOT Label	POISON GAS AND FLAMMABLE GAS	Harmonized #	2848.00.9000	Liquefied Gas

TECHNICAL DATA	Cylinder Pressure @NTP	594 psig 42.8 atm
	Specific Volume @NTP	0.712 m <sup>3</sup> /kg 11.4 ft <sup>3</sup> /lb
	CAS No	7803-51-2
	CGA/DISS/JIS	350/632/W22-14L
	Molecular Weight	33.99 g/mol
	TLV	0.3 ppmv
	Autoignition Temp	< 85°C

Vapor Pressure	Temp, °C	0.0	15.5	21.0	32.2	43.3
	Press, psig	310	449	594	641	799
	Temp, °F	32	60	70	90	110

RFO Data	Size, mm	0.254	0.3556	0.508	0.762	1.016
	Size, inches	0.010	0.014	0.020	0.030	0.040
	Flow, sccm	22393	42751	88216	196789	339291
	Flow, scf/h	47	91	187	417	719

NTP = 21°C or 70°F and 101.3 kPa or 1 atm

Cylinder	Treatment	Nominal Diameter (OD)xHeight*		Material of Construction	
		cm	Inches	Cylinder	Valve
QN	ULTRA-LINE®	23x130/134/143	9x51/52.5/56	CS/Ni-lined	SS
QZ	ULTRA-LINE II®	25x137/141/149	10x54/55.5/59	Aluminum	SS

\*Height is reported as the distance from the bottom of the cylinder to the cylinder neck/ center of the valve outlet/ top of the handwheel  
CS: Carbon Steel SS: Stainless Steel

⚠ WARNING: This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

<http://www.mathesongas.com>



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